


92-5777-0-121

COMMONWEALTH OF PENNSYLVANIA  
Department of Environmental Protection  
March 28, 2007  
717-705-4876

**SUBJECT:** Source Test Review  
B. Braun Medical, Inc.  
Donaldson Catalytic Ethylene Oxide Abatement System, Source ID S01  
Hanover Twp., Lehigh County  
Title V Operating Permit No. 39-00055  
eFACTS # 1541524

**TO:** Becky Easley  
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B. Braun Medical, Inc. operates an ethylene oxide medical equipment sterilization process at their Hanover Twp., Lehigh County facility. As a requirement of Title V Operating Permit No. 39-00055 the Donaldson Catalytic Abatement system and the Ethylene Oxide Scrubber used to control emissions must be tested to determine the ethylene oxide removal efficiency.

B. Braun Medical, Inc. conducted testing on March 17-24, 2006. Samples were collected in Tedlar bags at the inlet and outlet of the abatement system and the outlet of the scrubber then analyzed by gas chromatograph. The test results are acceptable to the Department as a credible representation of the actual emissions under the operating conditions during testing and may be used for compliance determinations.

The following is a summary of data presented in the test report.

**Donaldson Abatement System Ethylene Oxide Removal Efficiency**

Run No.	1		2		3	
Test Date	3/17/06		3/21/06		3/24/06	
Sampling Location	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet
Ethylene Oxide Concentration (ppmv)	29.49	0.88	20.82	0.76	19.08	0.38
Ethylene Oxide Removal Efficiency (%)	97.0		96.3		98.0	
Catalyst Bed Temperature (°F)	284		284		286	

**DEOXX Scrubber Ethylene Oxide Removal Efficiency**

Chamber No.	2	3	4
Test Date	3/28/06	3/24/06	3/28/06
Ethylene Oxide Introduced to Chamber (lbs)	43.0	47.0	42.1
Ethylene Oxide Remaining in Chamber Post Vacuum (lbs)	4.4	3.8	4.0
Ethylene Oxide Emissions at Scrubber Outlet (lbs)	0.018	0.051	0.058
Ethylene Oxide Removal Efficiency (%)	99.9	99.9	99.8

Red Data File- B. Braun Medical, Inc., Hanover Twp., Lehigh County  
Thomas DiLazaro, Air Quality Program, Northeast Regional Office  
Virendra Trivedi, Division of Permits, Title V Operating Permit No. 39-00055  
EPA/AKB  
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Reading File, Source Testing Section